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ABSTRACT

The development, initial standardization and substantive data of the University Residence Environment Scale (URES) is presented. The URES is a true-false perceived environment scale composed of 10 subscales (e.g., affiliation, innovation) which discriminates among the 74 student residences in the current norm group. The URES has high internal consistency, test-retest and overall profile reliability. Comparisons between dormitories and fraternities and men's, women's and co-ed dormitories are presented. The uses of the URES in the areas of program evaluation, change processes, and architectural-behavior research are discussed. (Author)

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Abstract

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Introduction

While the "environment" is generally considered to be a pervasive and extraordinarily powerful influence on behavior, the exact specification of environmental or situational variables has been relatively neglected. Early efforts in formulating these issues were presented by Murray (1938), Lewin (1951), and G. H. Mead (1934). In more recent years environmental and situational variables have been essential to analyses of social systems (Parsons, 1951) and behavior in face to face interactions (Goffman, 1971). In personality psychology traditional "trait" theories have been increasingly replaced by formulations stressing situational determinants (Mischel, 1968). Similarly, theories of therapy and clinical behavior change have stressed the importance of environmental events in chance of deviant behavior and the maintenance of more adaptive response systems (e.g., Bandura, 1968).

However, with the exception of the work of Barker (1968) and his colleagues (e.g., Barker & Gump, 1964) empirical attempts to specify environmental variables have, until recently,

been notably absent. In the last few years a number of investigations have focused on non-social and architectural environments (Craik, 1970), the consistency of personality "traits" under varying situational conditions (Endler & Hunt, 1968; Hunt, 1965; Moos, 1969) and the relationship of therapeutic behavior change to environmental stabilities (Bandura, 1970).

Various measures of "perceived" environment have been constructed for such diverse environments as psychiatric wards (Sommer, 1969, Moos and Houts, 1968) correctional facilities (Moos, 1968) high school classrooms (Walberg, 1969;) and university environments (Stern, 1970; Pace, 1969; Astin, 1968). For example, Stern's (1970) College Characteristics Index (CCI) and the College and University Environment Scale (CUES) developed by Pace (1969), were designed to measure the environment of colleges and universities by means of true-false questions asking students about their activities and impressions of the college environment.

Another approach exemplified by the Environmental Assessment Technique (EAT) of Astin and Holland (1961) characterizes educational institutions using student characteristics as indices of environmental impact. These characteristics include average intelligence and size of the student body and six "personal orientations" based on the proportions of students in six broad areas of study (e.g., scientific, artistic). More recently, Astin (1968) has developed the Inventory of College

Activities (ICA) which covers four broad areas of environmental "stimuli"; peer, classroom, administrative and physical facilities.

While these measures represent notable advances in the assessment of environments and their impact on individuals particularly in educational institutions (for comparisons of these methods see Feldman, 1970; Creager and Astin, 1968; Pace, 1970), it appears quite clear that college environments are not monolithic and undifferentiated (e.g., Pace, 1966) but are composed of various sub-environments which may have considerable impact in themselves on students and also on the larger college environment.

One such important environment is the immediate on-campus living residence (dormitory, fraternity, sorority, etc.) where students spend much of their non-classroom time in which a large proportion of interpersonal learning and peer influence occur (Wallace, 1966; Newcomb, 1943; Feldman and Newcomb, 1969). For example, it may be that the immediate living environment (as distinguished from the general college environment) may have significant impacts on students in areas such as satisfaction with college life, intellectual and academic productivity, changes in subjective mood states, and the development of psychiatric symptomatology. In order that these and other questions about the effect of the residential environment on students could be approached a scale was developed which measures both salient features of the residence environment and allows for the

systematic comparison across a wide variety of living arrangements in different college and university settings.

Three methodological approaches can be utilized to measure residence environments. The ecological approach might include the measurement of residence size, sex ratio of residents, student - staff ratio, the number of one, two and three person rooms, etc. A behavioral observation method (e.g., Barker's (1968) behavior setting approach) might focus on types and frequency of various activities of residents such as amount of time spent together, the attendance at house social functions, types of behaviors at mealtimes and house meetings, etc.

A third method, and the one employed in the present study, is logically similar to that used in the CCI, (Pace & Stern, 1958), CUES (Pace, 1969) and the Ward Atmosphere Scale (Moos, 1971); this may be termed the perceptual approach. Students and staff are asked to describe the usual patterns of behavior in their living units and their perceptions of the house. While each person may perceive his environment in idiosyncratic ways, there is a point at which each individual's private world merges with that of others so that common interpretations of events tend to arise out of common experiences. It is this consensual perception of the press of the immediate environment (in Murray's (1938) terminology the "beta" press) which the University Residence Environment Scale (URES) was developed to measure.

Each of the above approaches to the measurement of environments undoubtedly would yield important information about the

climate of university residences, and would be expected to be moderately correlated with data obtained using other methods. The usefulness of the perceptual approach may in part be seen by noting that the press of the external environment (including the behavior of other persons and ecological variables) suggests the direction a resident's behavior must take if he is to function with a minimum of stress and a maximum of satisfaction within his particular living group. For example, a student's perception of the friendliness or hositility of the environment regarding certain of his behaviors will channel his actions as a function of these anticipated rewards and punishments possible in his living unit. These perceptions will in turn, direct him to various aspects of the environment such as particular groups or individuals in his dormitory who may, through modeling and reinforcement processes, have an important impact on his subsequent attitudes, value orientations, intellectual curiosity and self evaluations.

Two major questions were asked in the present study: 1) Does the psychological environment vary from one living environment to another, and can these differences be measured by the URES: 2) Can the psychological environment of a residence be described in relatively homogeneous ways by persons in that milieu?

METHOD

Several methods were employed in obtaining the initial pool of questionnaire items and in gaining a naturalistic understanding

of dormitory climates. First, meetings with groups of dormitory residents were arranged to talk about perceptions of their individual houses and to discuss with them their likes, dislikes and general observations on dormitory living. Second, various environmental scales were studied to generate additional ideas about items which might discriminate between university residences. Third, various written accounts were searched (e.g., Sanford, 1962; Katz, 1968) in an effort to identify differing dormitory atmospheres and to understand dimensions along which university residences would vary. Lastly, observations by university housing personnel were solicited and the authors' own reminisences of their college experiences were scrutinized and wherever possible formalized into items. These sources generated an item pool of more than 500 initial questions.

The items were then sorted into categories by agreement between the two authors. An initial set of categories was selected on the basis of the above considerations and rough groupings of the items themselves, and from lists of environmental press from Murray (1938) and Stern (1970), and the previous work of Moos (e.g., 1968, 1972). Sixteen additional items were formulated in order to identify individuals who showed a strong positive or negative bias in their perceptions of their living residences.

The resulting 274 item questionnaire was given to both student and staff residents in 13 dormitories at a private university. These dormitories included male, female and coeducational

houses, large and small units, and houses composed of only freshmen, or only upperclassmen or all four undergraduate classes combined.

Revision of Preliminary URES

The total number of students and staff tested in the 13 dormitories was 455 and 11 respectively. Approximately 55% of the students approached returned useable questionnaires. This percentage varied from 42% to 92%.

The first question of interest was to determine whether the items actually discriminated among the tested houses. One-way analyses of variance were computed among all 13 dormitories for each of the 238 environmental items (of the total 274 items, 20 were Crowne-Marlow S.D. and 16 were halo items). Of these items 87.9% were significant beyond the .05 level with 199 or 83.6% of the total discriminating at the .01 level. These results are for the students and staff combined (for this analysis both groups were combined since the number of staff in this sample was quite small, consisting of 2.4% of the total N). Of the 238 environmental items, 18 or 7.6% had significant ($p < .05$) correlations with the total Crowne-Marlow scale, indicating that item responses by subjects were not confounded by social desirability.

Since it appeared that measures of the perceived environment could significantly discriminate among different living units, the next step was to select items for a revised version of the scale. Criteria used in selecting items for the revised (R1) form were as follows. First, an item should significantly

discriminate among the houses tested. Secondly items should not have true-false response splits more extreme than 80% - 20% to be descriptive of all residences. Third, each subscale should have 5 true keyed and 5 false keyed items so that acquescient responding could be controlled. Lastly, items should not be correlated with the Crowne-Marlow scale.

These four criteria were applied to the item responses from the dormitory sample and resulted in a 140 item R1 form of the URES composed of 14 environmental subscales of 10 items (5 true-5 false) each. Of these items, 95% (133) significantly discriminated among residences and only 9 items or 6% had significant correlations with the Crowne-Marlow scale. The fifteenth scale, Halo, was constructed from a group of extremely positively and negatively worded items using the same criteria as above with the exceptions that: a) the item should <u>not</u> discriminate among residences and b) the items should be endorsed in the keyed direction by <u>fewer</u> than 10% of subjects.

Each of the 15 subscales of the URES, R1 version were then subjected to one way analyses of variance across the 13 dormitories. All 14 environmental subscales reliably differentiated among houses in the sample, while the Halo subscale did not differentiate among the houses tested.

<u>Revision of the URES: R1 Form</u>

The psychometric properties of the scale, results from initial data collection and enthusiasm from feedback of results to dormitory residents and administrative personnel encouraged the

authors to collect data on a larger number and wider range of student residences. The demographic characteristics of this current 74 residence norm group are presented in table 1.

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insert table 1 about here

Subsequent to this data collection, the decision was made to revise the R1 version of the URES to: (1) reduce the total number of items in the scale, (2) reduce the content overlap and seeming redundancy of some items, and (3) to reduce the overlap among some subscales (e.g., Affiliation, Support, Involvement and Interpersonal Openness correlated with one another approximately .7).

A random sample (N=505) of students was chosen from each house in the norm group with selection being made to insure proportional sex and class representation within each floor of each residence. A factor analysis (VARIMAX rotation) was then performed to provide information about possible item clustering other than the a priori method initially employed in defining the subscales. In general, the factors which emerged in this analysis closely paralleled the R1 subscales. The main exception was that the first factor was a combination of all of the Affiliation and Involvement items and 5 items from Support. Factor VI combined 6 items from Independence and 6 items from Social Propriety and factor IV combined 3 items from Support and 4 from Competition. Item intercorrelations, subscale intercorrelations and item-to-

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subscale correlations were then calculated for 3 successive trials with item deletion and subscale recomposition after each trial as indicated.

The subscales were reorganized using the criteria previously mentioned (i.e., reduction of item and subscale overlap; reduction of total scale length) and the additional criteria of high item-subscale correlation, and maximum discrimination of items. This latter criterion was met by computing one way analyses of variance for each item across all 74 houses in the norm group and choosing items with the most significant F ratios. This procedure resulted in a 96 item URES (Form R2) grouped into 10 subscales[3]. Table 2 presents the subscales and their definitions.

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insert table 2 about here

The subscales are grouped into four categories: Interpersonal Relationships; Personal Growth; Intellectual Growth; System Change and Maintenance. These categories appear to reflect the basic areas of concern of college students living in on-campus residences and as such are seen as broad organizational themes underlying the scale. Similar themes have been found in other perceived environmental measures such as the WAS (Moos & Houts, 1968) and the Correctional Institution Environment Scale (Moos, 1968).

RESULTS

Subscale Discrimination

Each of the ten URES subscales were subjected to one way analyses of variance across a sample of 13 residences in the current norm group to determine whether they differentiate among residences. Table 3 shows that all 10 subscales very significantly discriminated among the houses in the sample.

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insert table 3 about here

Reliability

The reliability of the R2 form was estimated by employing internal consistency, test-retest and profile stability methods. Table 4 presents the subscale internal consistencies for the original 13 dormitory sample (N=466). As can be seen, KR20 correlations range between .76 and .87. This level of subscale homogeneity is quite satisfactory and remarkably high for scales composed of only 9 or 10 items each.

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insert table 4 about here

The temporal stability of individual perceptions was measured by administering the URES to the same subjects on three separate occasions in one men's and one women's dormitory at a public university. The product-moment correlations reveal that individuals living in these two dormitories perceive their

respective environments in similar ways both one week and one month after an initial testing. The correlations presented in Table 4 range from .67 to .75 after one week and .59 to .74 after one month. While there is some decrease of the correlations from the one week to the one month testing as would be expected, the drop off is quite small indicating adequate individual stability of perceptions over 11% of the academic year.

The third important reliability component for an environmental scale is the stability of subscale scores when the residence as a whole is the unit of measurement. The intra-class correlation derived from the analysis of variance was used to estimate profile stability one week and one month after the initial testing for the above two dormitories, and provides a temporal stability index for all ten subscales. For the men's dormitory the intraclass correlation is .96 after one week and .86 after one month. For the women's house the stability is similar, .96 after one week and .98 after one month. Thus when the perceptions of house residents are pooled, the stability of the subjective environment becomes remarkably high.

Intra House Agreement

The homogeneity of living unit perceptions by persons within the house was approached by computing the percentage agreement for each subscale over the original sample of 13 dormitories. For the 130 comparisons (13 houses by 10 subscales each) 113 are greater than 70%. While some variation would be expected (and may even itself be indicative of an environmental quality) a

reasonably high rate of agreement by residents in a house should obtain and be reflected in environmental measures. In general, the URES fares well on this criterion and reflects a high degree of consensus among residents (a similar method is presented by Pace (1969) who used a 2/3 agreement criterion for scoring CUES).

Subscale Independence

Subscale correlations for the revision sample are presented in Table 5. As can be seen most of the subscales are only moderately correlated with one another and many are essentially uncorrelated. The mean of all the correlations is .184. The degree of overlap, thus appears to be sufficient to conclude

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insert table 5 about here

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that the subscales are measuring aspects of a diverse but unified environment while sharing a small enough common variance to tap the unique components of the residence climate.

While the mean of all the subscale correlations are in the moderate range, there are certain exceptions which in themselves lend some support to the internal validity of the URES. The highest positive relationship (r=.62) occurs between Support and Involvement, with these two subscales also being significantly related to Intellectuality and Innovation. Further, Support is negatively correlated with Competition. Thus it appears that residences which are seen as interpersonally involving are also seen as supportive innovative and intellectual. In another

area of the social climate, houses which are seen as having considerable Independence are also seen as having little Order and Organization and as being low in Traditional Social Orientation.

Illustrative Results

URES profiles from the normative sample of 74 residences are presented below to illustrate some of the utility of the URES and to present substantive data about the psychosocial environment of student residences.

Residence Profiles

Profiles can be constructed which show the average perceptions of a residence group or any subgroup within a house. Figure 1 presents the perceptions of student residents in 28 women's, 15 coed and 12 men's dormitories. Women see their

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insert figure 1 about here

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houses as emphasizing general psychological support, interpersonal and house involvement, and as stressing more traditional culturally valued behaviors than do men's houses. On the other hand, men perceive their houses as stressing competitive and non-conformist qualities more heavily than the women's houses. While "conventional wisdom" of men's and women's dormitories seems to receive some support inasmuch as women's dorms are seen as having more interpersonal and socially traditional concerns, while men's dorms de-emphasize these qualities, nonetheless some unexpected similarities between men's and women's dorms do

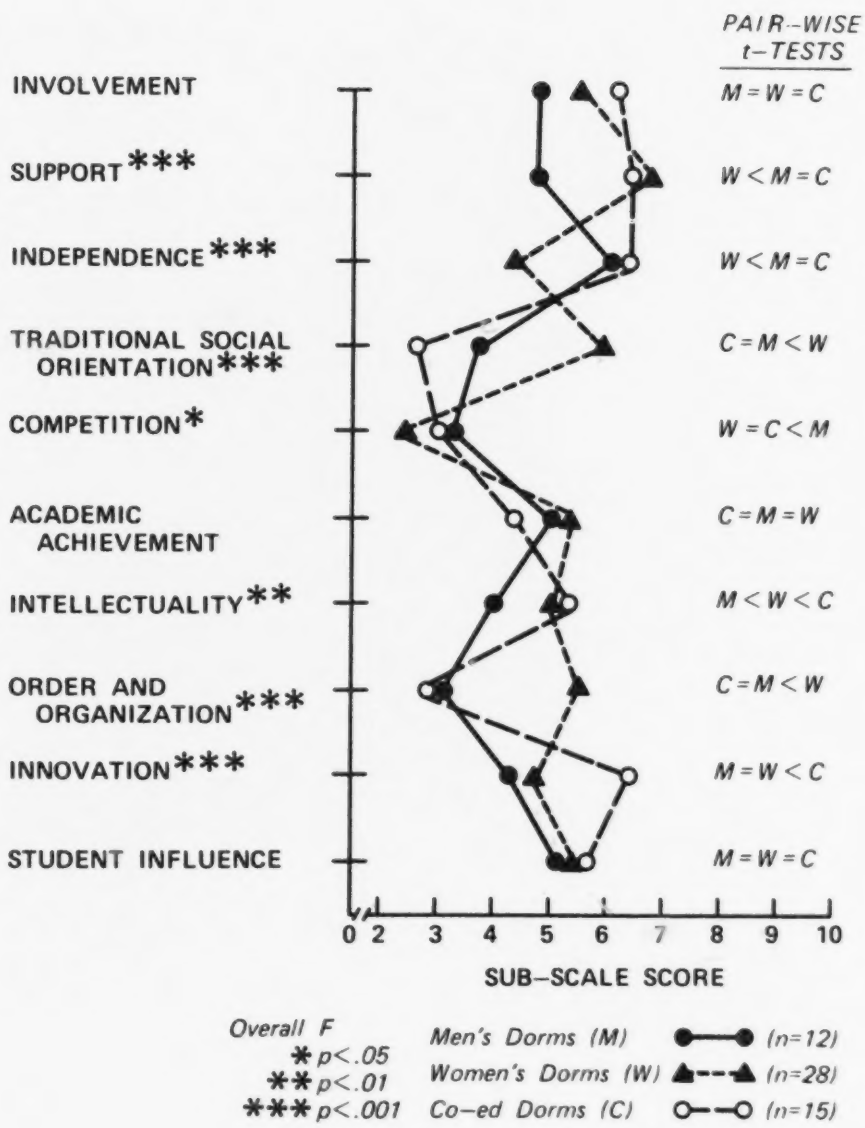

Figure 1. URES profile comparisons of men's, women's and co-ed dormitories.

emerge. For example, men's dorms are generally described as more spontaneous and academically achieving than women's dorms. In the present sample, assessment by the URES does not reveal such differences.

On the other hand co-ed houses are perceived as possessing as much Support and Involvement as women's houses, and as much independence and traditionally oriented qualities as men's residences. They are also seen as low in Competition and Order & Organization but high in Innovation and Intellectuality.

It is interesting to note that residents of coed houses perceive their environments as stressing personal concern, involvement, mutual support and a high degree of both independence and achievement. While this finding in itself may be significant in the assessment of these different living arrangements, a further important question is whether these environmental differences are due to pre-selection of student residents, the results of the living experience itself, or is an interaction. Further studies are planned to elucidate this process.

Intra-house Comparisons

Within any residence various subgroups may differentially perceive the environment, and this may in turn influence the overall level of satisfaction or conflict in the house and provide clues to the locus of such strain. One example of such subgroup comparisons are the perceptions of male and female students living in the same coed residence. Other interesting comparisons could be made for students vs. staff, senior vs.

freshman students, new vs. old residents, etc. A sample of three co-ed houses (N=195) tested in one private university were compared to provide an illustration of the potential of the URES in this area.

In these three coed dormitories the men and women perceive the house environment almost identically with no significant differences emerging on any subscale. One reason contributing to the close congruence of perceptions in these three houses may be attributed to the fact that coed housing was in its fourth year at the university sampled and this may have allowed sufficient time for a set of "cultural" norms to be established and transmitted to new residents. Thus potential desparities of attitude, perceptions and behavior of both sexes could be accommodated within an overarching set of values.

An alternative hypothesis is that since students living in the relatively few coed houses then available on this campus were self selected, they entered with similar expectations rather than these attitudes and perceptions being shaped by the living environment. It would be quite interesting to make similar comparisons at institutions that were in their first year of coed living arrangements, and where the student's housing choices were more restricted.

Comparison of Dormitories and Fraternities

An important use the URES may be in comparing different residence philosophies as reflected in the type of programs and

residence organizational structures developed at various institutions. Not only can the pervasive dormitory-fraternity dichotomy be compared as below, but also residences with various programs can be evaluated and contrasted to other such experiments. Figure 2 presents the profiles of three men's dormitories and eight fraternities on the same campus. By only comparing residences drawn from the same institution, personality characteristics of individuals are less likely to emerge as a significant component than if houses from different institutions were contrasted.

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insert figure 2 about here

While differences in the System Change and Maintenance area and in Traditional Social Orientation and Competition could be expected (e.g., Scott, 1965), it is interesting that in the Relationship area fraternities see their houses as having more Involvement and marginally more emotional support than the men's dormitories. These results may be the joint effect of three variables. First, since fraternities select future members and initiate them, the degree of loyalty and group cohesion may be enhanced (Festinger, 1957). Secondly, this selection process tends to increase the likelihood that members are similar in values, interests and attitudes with the existing membership which may lead to greater interpersonal attraction among members and thus further increase group cohesion and organizational

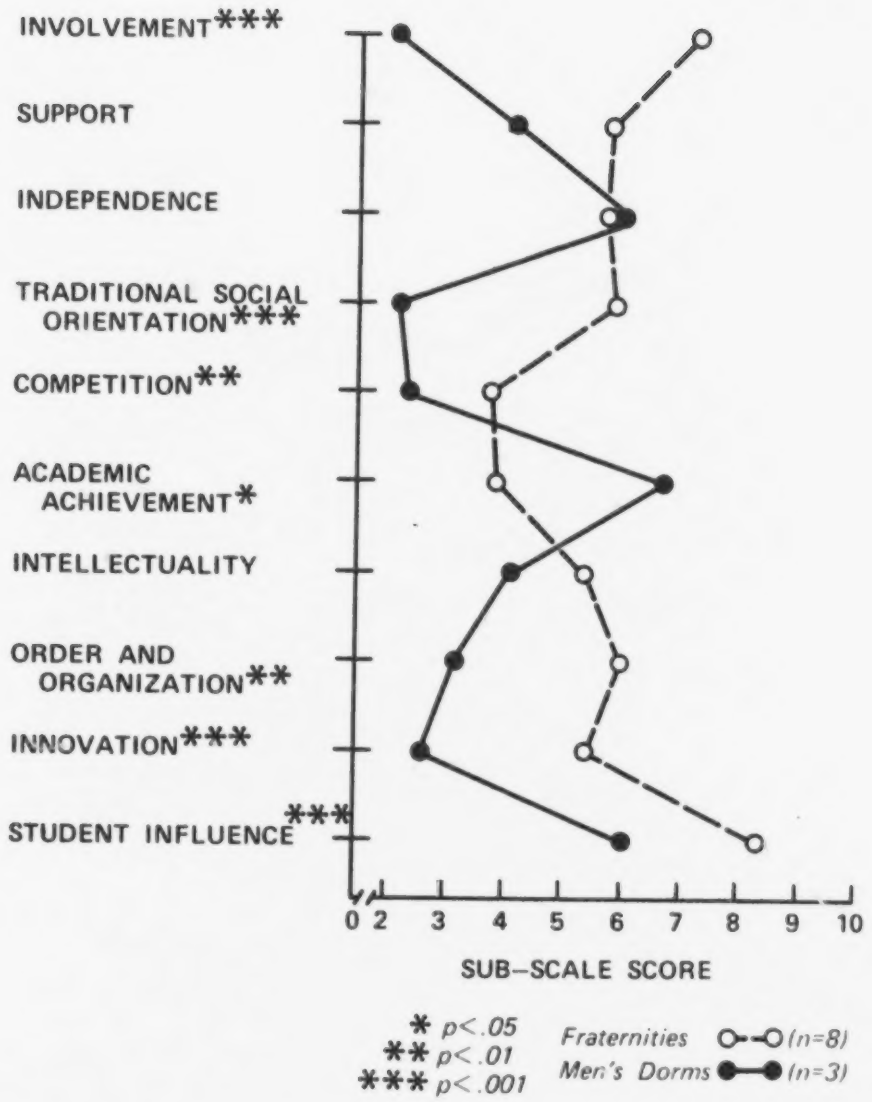

Figure 2. URES profile comparisons of fraternities and men's dormitories from the same university.

loyality (Newcomb, 1961). Third, since the mean size of the fraternities ($\bar{X}$=35) is smaller than the dorms ($\bar{X}$=47) in this sample it is possible that more face to face interaction and mutual influence occurs in the fraternity than the dormitories. This process may also be enhanced by "ecological" processes such as the physical "home-like" design of the house (Van der Ryn & Silverstein, 1967) versus the more institutional architecture of the dorms.

Individual House Comparisons

Figure 3 compares two individual houses normed against the 74 residences in the present sample. Individual profiles such as these may be used for "feedback" to particular residences and can serve as the basis for discussions aimed at making specific changes in house atmosphere by the residents themselves. In order to illustrate the wide differences between individual university residences, an undergraduate co-ed theme house, and a medical student men's house are contrasted.

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insert figure 3 about here

Programatically, the theme house was organized around the area of international relations. There was a great stress placed on intellectual discussions of world problems and an active program of invited speakers and new activities were continually being generated in the house. Informally, the faculty advisor, (who lived in the house and was a strong influence), indicated

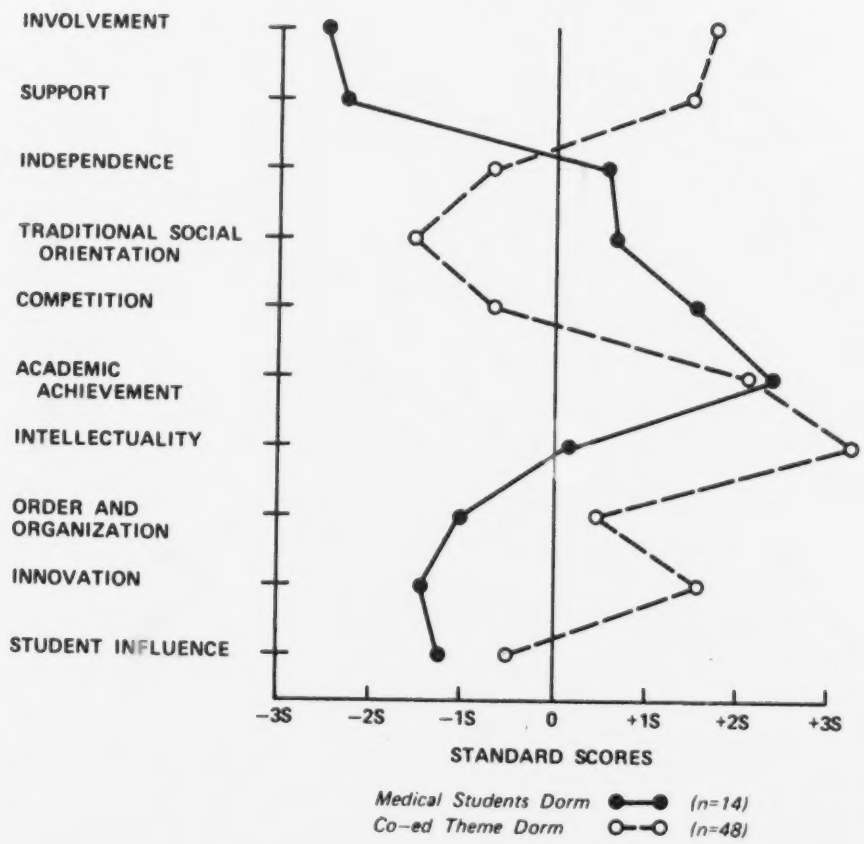

Figure 3. URES profile comparisons of two houses normed against the 74 house standardization group.

that he wanted the students to be the intellectual and academic elite of the university.

By contrast the medical students appeared to be quite disinterested in any activities not directly related to their academic pursuits. Frequent comments were made to the test administrators about their house being more like a hotel than a dormitory. Many people said they did not even know the names of their next door neighbors and in response to the scale item "People here never talk to one another at mealtimes" an astounding 80% answered affirmatively. In the Relationship area, there is almost a five standard deviation spread between the houses. There are also very large differences on such subscales as Competion and Intellectuality.

The theme house appears as a very warm innovative and intellectual house while the medical students describe their house as having a very unsupportive competitive and achievement oriented environment.

DISCUSSION

In the past when comparisons have been made between dormitories, fraternities, and other student living groups, the dimensions used were either readily observable indices such as number of students, number of staff, amount of floor space per student etc., or naturalistic observations codified into case study vignettes (exceptions to this are Scott (1965), and Centra (1967)). The results from the URES demonstrate that the perceived social-psychological climate can be reliably measured and thus aid in

the systematic description and comparison of university residences. The psychometric and conceptual properties of the scale encourage its use in a number of research directions, some of which are summarized below.

Programtic Evaluation

The URES may be an effective tool in the evaluation of the impact on students of programtic and compositional innovations. For example, many universities are currently instituting "living and learning" dormitories where much of the traditional class and seminar teaching is integrated into the residence with faculty members often living in the house. Other colleges and universities are establishing experimental living arrangements such as coed housing and bi-ethnic dormitories where 20-50% of the residence are students from minority groups currently entering universities in significant numbers.

In both of these areas a primary empirical issue concerns the extent and type of impact on the member of the living unit. The URES may be useful in providing one type of evaluative information in assessing the adequacy of existing programs and pointing directions for additional changes.

Change in Residence Climate

While programtic innovations may effect changes in the environment of a student residence, student initiated change may be more effective and provide a richer interpersonal learning experience. Such internally generated changes (via encounter groups, student projects, etc.) may be assessed by the URES and

more interestingly the scale itself may be incorporated in a change program. There is some evidence (Pierce, Trickett, Moos, 1972; Moos & Otto, 1972) that people's knowledge of their own environment may be a powerful tool in enabling them to plan and implement changes along desired dimensions.

URES feedback may take a variety of forms. For example, a comparison illustrating for residents their perceptions of an "ideal" house versus their perceptions of their actual living situation may be used as a basis to plan change strategies to reduce the real-ideal discrepancies. Further, a comparison of the residence perception by staff and students could make clear to each the areas of conflict, confusion and contradictory expectations of their shared environment and thus enhance the possibility of cooperative change efforts.

Individual Impact

The effect of the immediate social environment on individual student development may also be approached using this instrument. For example, the manner in which a student perceives the social climate of his residence may influence his subjective mood states such as feelings of depression, alienation and isolation. Furthermore, a student's satisfaction with his residential environment may influence his perception of himself and his overall college experience such that pursuit of relationships with others and the degree of involvement in intellectually and emotionally significant activities may be affected.

Architectural and Design Influences

While large sums of money have been spent on the design and construction of student housing only sporadic attempts to assess the impact on their users have been made (e.g., Avery, 1971; Sommer, 1969; Van der Ryn & Silverstein, 1967; Proshansky, Ittelson, Rivlin, 1970). For example, it may be that student residences which are designed in small clusters of rooms around a central courtyard are perceived as having more Support and Involvement than dormitories arranged in straight line corridors. It may be possible that the psychological and behavioral consequences of variations in architectural planning can be approached using the URES as a measure of the psychosocial atmosphere.

Person - Environment Interaction

The URES and other environmental assessment instruments such as the WAS, the CCI, CUES and the ICA have implications for the assessment, prediction and modification of behavior. As trait theories of personality have been replaced by interactive theories, the necessity for the measurement of environmental settings in which behavior occurs has increased (e.g. Mischel, 1968). Not only must situational variables be specified more exactly, but the boundaries and common elements of various environments must also be delimited. When the environmental regulators of behavior are more fully documented it may become possible to delineate the interpersonal skills appropriate to subsets of common environments (Goldfried & D'Zurilla, 1969) and to enhance an individual's coping skills necessary for acceptable behavior in particular interactive domains.

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FOOTNOTES

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2. This research was conducted while the senior author was a post-doctoral fellow in the Social Ecology Laboratory of the Department of Psychiatry, Stanford University. Reprint requests may be addressed to the senior author at: Department of Psychiatry, School of Medicine, University of California, San Diego, La Jolla, California 92037.

3. The R2 version of the URES is available for research purposes and may be obtained by writing either author.

Table 1

Background Characteristics Of

URES Norm Group

Type of Institution	Location	Type & Number Of Residences				Range Of Residence Sizes
		Coed Dorms	Men's Dorms	Women's Dorms	Frater-nities	
Private Univ.	Calif.	3	3	7	8	25-300
Religious Univ.	Calif.		1	1		>200
State College	Calif.		2	3		88-210
Religious College	Calif.	1		2		27-84
Medical School	Calif.		1	1		100
Women's Religious College	Calif.			3		55-87
Fine Arts College	Calif.	1				60
State College	Calif.	1				160
Women's College	Calif.			2		24-156
State Univ.	Calif.	7	3	4	8	16-110
State Univ.	Florida		1	2		150-265
Liberal Arts College	Ohio		2	2		30-60
State Univ.	Calif.	3	1	1		60-100

Table 2

University Residence Environment Scale: Subscale Definitions

Interpersonal Relationships: The emphasis on interpersonal relationships in the house.

1. Involvement (10)[a] - Degree of commitment to the house and residents; amount of social interaction and feeling of friendship in the house.
2. Emotional Support (10) - Extent of manifest concern for others in the house; efforts to aid one another with academic and personal problems; emphasis on open and honest communication.

Personal Growth: Social pressure dimensions related to the psycho-social development of residents.

3. Independence (10) - Diversity of residents' behaviors allowed without social sanctions, versus socially proper and conformist behavior.
4. Traditional Social Orientation (9) - Stress on dating, going to parties, and other "traditional" heterosexual interactions.
5. Competition (9) - (This subscale is a bridge between the Personal Growth and Intellectual Growth areas.) The degree to which a wide variety of activities such as dating, grades, etc., are cast into a competitive framework.

Intellectual Growth: The emphasis placed on academic and intellectual activities related to cognitive development of residents.

5. Competition - As above.
6. Academic Achievement (9) - Extent to which strictly classroom accomplishments and concerns are prominent in the house.
7. Intellectuality (9) - Emphasis on cultural, artistic and other scholarly intellectual activities in the house, as distinguished from strictly classroom achievement.

System Change and Maintenance: The degree of stability versus the possibility for change of the house environment from a system perspective.

8. Order and Organization (10) - Amount of formal structure or organization (e.g., rules, schedules, following established procedures, etc.) in the house; neatness.
9. Innovation (10) - Organizational and individual spontaneity of behaviors and ideas; number and variety of activities; new activities.
10. Student Influence (10) - Extent to which student residents (not staff or administration) perceive they control the running of the house; formulate and enforce the rules, control use of the money, selection of staff, food, roommates, policies, etc.

a Number of items in each subscale.

Table 3

URES Sub-Scale Analysis of

Variance Across 13 Dormitories (N=466)

Subscale	F[a]
Involvement	7.75*
Support	8.55*
Independence	16.79*
Traditional Social Orientation	37.13*
Competition	2.52*
Academic Achievement	4.98*
Intellectuality	6.17*
Order & Organization	32.72*
Innovation	12.47*
Student Influence	7.52*

* $p < .001$

a df=12/451

Table 4

URES Internal Consistency (N=466); And
Test-Retest Reliabilities Across
Individuals (N=83) In 1 Male Dorm
And 1 Female Dorm

Subscale	KR-20	Time Interval	
		Time 1 vs 1 Week	Time 1 vs 4 Weeks
Involvement	.879	.740	.698
Support	.816	.773	.710
Independence	.772	.713	.592
Traditional Social Orientation	.868	.731	.742
Competition	.766	.709	.673
Academic Achievement	.835	.755	.737
Intellectuality	.836	.672	.656
Order & Organization	.860	.705	.676
Innovation	.766	.699	.692
Student Influence	.805	.660	.652

Table 5

Subscale Correlations (N=505)

Sub-Scale	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Involvement									
2. Support	.62								
3. Independence	-.12	.18							
4. Traditional Social Orientation	-.05	-.01	-.38						
5. Competition	-.11	-.33	-.05	.19					
6. Academic Achievement	-.09	.08	-.20	-.06	-.07				
7. Intellectuality	.41	.43	-.03	-.14	-.06	.26			
8. Order & Organization	.19	.24	-.40	.27	-.06	.23	.13		
9. Innovation	.57	.45	.16	-.15	-.12	-.18	.43	.09	
10. Student Influence	.20	.17	.08	-.13	-.16	.09	.16	.10	.06